North Carolina Total Retirement Plans

myNCRetirement Statement
(formerly the Annual Benefit Statement) Report

Data in Report as of December 31, 2017 Prudential

North Carolina
Total Retirement Plans
401k | 457 | 403b

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For Institutional Plan Sponsor or
Consultant Use Only

Report contains information up through the last business day of the period end.

Report Methodology

The following report is a summary of the *my*NCRetirement Statements for 2017.

The basis for the data included in these calculations is a compilation of information via the partnership of The State of North Carolina, Broadridge, and Prudential.

Retirement readiness is for members to replace 80% of their income for retirement at age 62.

Retirement readiness is a combination of the following four factors:
- The NC pension plan
- NC Total Retirement Plans 401(k), 457 and 403(b)
- Social Security
- Outside Assets entered via Prudential's Retirement Income Calculator (RIC)

Section I:
Retirement Readiness Summary

Retirement Readiness 2017 Goal - 67% of all active members are "on track" to replace 80% of their replacement income at retirement age beginning at age 62 and throughout retirement

Summary:

- The 2017 Retirement Readiness score is 57.56%, compared to last year's score of 58.04%.
- As expected, the benefit of the majority of members receiving salary increases, continues to have a downward impact in the calculation of Retirement Readiness scores. This variable is the most important factor in determining a member's score as it establishes a higher replacement ratio.
- The monthly pension estimate used in this calculation is not a one-for-one equivalence in the salary provided to determine the Retirement Readiness score. Salary data provided by the State is used in the *my*NCRetirement Benefit Statement calculation to determine the 80% income replacement ratio, while the monthly pension benefit provided by the State is an average of members last four years of salary.
- This monthly factor continues to be a significant obstacle to a satisfactory Retirement Readiness result. Despite strong 2017 investment gains and Prudential exceeding its retirement readiness goals these efforts did not overcome this factor.
- The Retirement Readiness score for members with only a pension plan fell from 47.39% in 2016 to 46.31% in 2017, a 1.08 percentage point (pp) decrease.
- This same metric has gone from 60.37% in 2013 to 55.42% in 2014 to 50.16% in 2015 to 47.39% in 2016 and to 46.31% in 2017. This trend is likely attributed to large portions of the membership receiving salary increases (See slide 10 for member examples.)
- The average Retirement Readiness score for members who also have a NC 401(k) and/or NC 457 Plan remains strong at 72.23% in 2017. Even with the impact of salary increases, this score actually increased 0.14 pp from 2016, which was 72.09%.
- Total asset growth in the NC 401(k) and NC 457 Plans was strong in 2017, increasing 16.00% in the NC 401(k) Plan and increasing 12.94% in the NC 457 Plan.
- The Active Participation Rate increased across all Plans 1.4% from 2016 to 2017.
- Across the Plans the Average Monthly Contributions increased 3.8% from 2016 to 2017.
- The GoalMaker Utilization among new members across all Plans increased 7.2% from 2016 to 2017.

Please view pages 7-10 in the Retirement Readiness summary section for a deeper view of this year's analysis.

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2017 Overall Retirement Readiness Score:

Item	2014	2015	2016	2017	2016 to 2017 Difference
Number of Member Records in the MRS file	388,730	381,987	384,962	390,696	1.49%
Number of Members with only a pension plan	224,528	217,348	219,036	221,178	0.98%
Number of Members with NC 401(k) and/or NC 457 Plans	164,202	164,639	165,926	169,518	2.16%
Percentage of Members with NC 401(k) and/or NC 457 Plans	42.24%	43.10%	43.10%	43.39%	0.29 pp
Retirement Readiness Score for Members with NC 401(k) and/or NC 457 Plans	75.75%	74.09%	72.09%	72.23%	0.14 pp
Retirement Readiness Score for Members Only in the pension plans	55.42%	50.16%	47.39%	46.31%	-1.08 pp
Projected Retirement Readiness gap/surplus within +/- $100 per month	106,384	104,107	102,852	100,522	-2.27%
Members that also have a NC 401(k) and/or NC 457 Plan that have a projected retirement gap/surplus within +/- $100 per month	29,258	30,193	30,341	28,680	-5.47%
Members within five years of projected retirement date	71,927	72,106	72,213	74,480	3.14%
Members within five years of projected retirement date (% of active membership)	18.50%	18.88%	18.76%	19.06%	0.30 pp
Members within five years of projected retirement date (Retirement Readiness Score)	52.85%	54.29%	51.33%	57.56%	6.23 pp

- 42,931 new members not in last year's report (67.33% Retirement Readiness score in 2017)
- 37,197 members in last year's report, not in this year's report (61.52% Retirement Readiness score in 2016)

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Retirement Readiness Goals Comparison

Item	2014	2015	2016	2017	2016 to 2017 Difference
NC 401(k) Plan: Increase GoalMaker utilization among new members	92.29%	92.36%	88.30%	94.79%	6.49 pp
NC 401(k) Plan: Increase GoalMaker utilization among all members	55.50%	58.38%	60.83%	63.14%	2.31 pp
NC 401(k) Plan: Increase the average monthly contribution	$160.91	$158.95	$162.57	$169.96	4.55%
NC 401(k) Plan: Increase active participation	27.19%	26.06%	29.74%	29.80%	0.06 pp
NC 457 Plan: Increase GoalMaker utilization among new members	90.53%	93.63%	87.06%	92.40%	5.34 pp
NC 457 Plan: Increase GoalMaker utilization among all members	56.77%	60.98%	64.10%	66.47%	2.37 pp
NC 457 Plan: Increase the average monthly contribution	$130.72	$135.71	$136.37	$138.72	1.72%
NC 457 Plan: Increase active participation	11.57%	10.86%	11.17%	11.06%	-0.11 pp

NC 401(k) and 457 Plans' Metrics

Item	2014	2015	2016	2017	2016 to 2017 Difference
NC 401(k) Plan Asset Growth	5.89%	-0.17%	7.09%	16.00%	8.91 pp
NC 457 Plan Asset Growth	5.42%	0.11%	6.44%	12.94%	6.50 pp
NC 401(k) Plan Earnings	$435,626,831	($13,154,210)	$565,292,112	$1,283,410,368	127.03%
NC 457 Plan Earnings	$58,928,823	$1,288,003	$74,327,413	$164,015,497	120.67%
NC 401(k) Plan Contributions	$466,878,369	$488,571,537	$514,833,454	$534,966,971	3.91%
NC 457 Plan Contributions	$71,432,418	$77,518,765	$78,472,225	$76,930,255	-1.96%
NC 401(k) Plan Distributions	$383,451,281	$420,108,513	$430,672,400	$483,339,414	12.23%
NC 457 Plan Distributions	$60,099,652	$71,761,033	$78,151,691	$82,011,666	4.94%

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NC 401(k) and 457 Plans' Participation Comparison

Item	2014	2015	2016	2017	2016 to 2017 Difference
NC 401(k) Plan Members with an Account Balance	247,850	257,542	245,550	250,305	1.94%
NC 401(k) Plan Average Account Balance	$31,618	$30,643	$34,784	$39,457	13.43%
NC 401(k) Plan Median Account Balance	$10,343	$8,885	$11,488	$12,642	10.05%
NC 401(k) Plan Members Actively Contributing	58.46%	56.90%	50.59%	66.17%	15.58 pp
NC 401(k) Plan Members Terminated/Retired	21.08%	22.38%	19.62%	21.14%	1.52 pp
NC 401(k) Plan Members Not Contributing	20.46%	20.71%	29.80%	30.48%	0.68 pp
NC 457 Plan Members with an Account Balance	51,892	55,565	52,593	53,837	2.37%
NC 457 Plan Average Account Balance	$22,097	$20,763	$23,356	$25,769	10.33%
NC 457 Plan Median Account Balance	$2,224	$2,015	$2,916	$3,389	16.22%
NC 457 Plan Members Actively Contributing	58.76%	57.73%	63.56%	62.32%	-1.24 pp
NC 457 Plan Members Terminated/Retired	21.86%	23.35%	19.57%	21.58%	2.01 pp
NC 457 Plan Members Not Contributing	19.38%	18.92%	16.87%	17.87%	1.00 pp

Historical:

2011 actual results were 55.60%

2012 goal was 58%, 2012 actual results were 59.92%   2015 goal was 65%, 2015 actual results were 60.48%

2013 goal was 60%, 2013 actual results were 67.56%   2016 goal was 66%, 2016 actual results were 58.04%

2014 goal was 70%, 2014 actual results were 64.01%   2017 goal was 67%, 2017 actual results were 57.56%
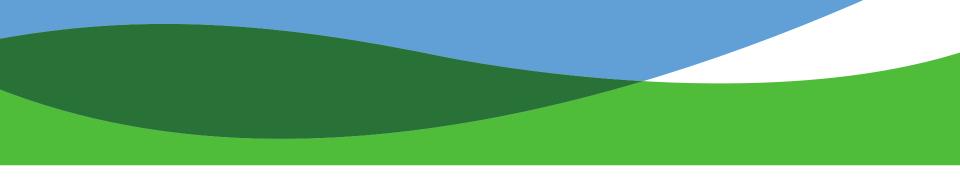
Member Examples

Name	Age	2016 Annual Salary	2016 Monthly Income Needed	Gap/ Surplus	2016 Monthly Projected Income	2016 RR Score	2017 Annual Salary	Change in Annual Salary	2017 Monthly Projected Income	Change in Monthly Projected Income	In NC 401(k)/ 457 Plan (as of 12/31/17)?	2017 RR Score	Change in RR Score
SANDRA	71	$37,347	$2,500	-$464	$2,036	65.42%	$38,866	$1,519	$2,155	$119	Yes	66.54%	1.12 pp
ANITA	48	$50,450	$3,400	$264	$3,664	78.57%	$55,134	$4,684	$3,473	-$191	Yes	75.59%	-2.98 pp
DONALD	36	$50,339	$3,400	-$223	$3,177	75.73%	$53,089	$2,750	$3,378	$201	No	76.35%	0.62 pp
ROSETTA	39	$27,431	$1,800	$306	$2,106	92.13%	$32,225	$4,794	$2,200	$94	Yes	81.92%	-10.21 pp
ELISABETH	49	$28,895	$1,900	$336	$2,236	92.86%	$35,958	$7,063	$2,528	$292	No	84.37%	-8.50 pp

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Gap & Surplus By Projected Retirement Age

Projected Retirement Age	#	# Gap	% Gap	# No Gap (Excess)	% No Gap (Excess)	# Replacement < 60%	% Replacement < 60%	# Replacement => 60%	% Replacement => 60%
< or = 50	3,202	496	15.49%	2,706	84.51%	28	0.87%	3,174	99.13%
51 - 61	238,381	93,026	39.02%	145,355	60.98%	5,163	2.17%	233,218	97.83%
>61	149,113	72,196	48.42%	76,917	51.58%	8,167	5.48%	140,946	94.52%

Gap & Surplus By Projected Retirement Age & Region

CAPITAL REGION

Projected Retirement Age	#	# Gap	% Gap	# No Gap (Excess)	% No Gap (Excess)	# Replacement < 60%	% Replacement < 60%	# Replacement => 60%	% Replacement => 60%
< or = 50	192	21	10.94%	171	89.06%	2	1.04%	190	98.96%
51 - 61	14,814	6,142	41.46%	8,672	58.54%	399	2.69%	14,415	97.31%
>61	9,259	4,349	46.97%	4,910	53.03%	556	6.00%	8,703	94.00%

CAPITAL-METRO REGION

Projected Retirement Age	#	# Gap	% Gap	# No Gap (Excess)	% No Gap (Excess)	# Replacement < 60%	% Replacement < 60%	# Replacement => 60%	% Replacement => 60%
< or = 50	796	180	22.61%	616	77.39%	6	0.75%	790	99.25%
51 - 61	57,520	21,620	37.59%	35,900	62.41%	765	1.33%	56,755	98.67%
>61	37,695	19,889	52.76%	17,806	47.24%	2,340	6.21%	35,355	93.79%

CAPITAL-WEST REGION

Projected Retirement Age	#	# Gap	% Gap	# No Gap (Excess)	% No Gap (Excess)	# Replacement < 60%	% Replacement < 60%	# Replacement => 60%	% Replacement => 60%
< or = 50	153	30	19.61%	123	80.39%	4	2.61%	149	97.39%
51 - 61	14,596	7,430	50.90%	7,166	49.10%	452	3.10%	14,144	96.90%
>61	10,306	6,494	63.01%	3,812	36.99%	1,149	11.15%	9,157	88.85%

Appendix:
How the MRS is Calculated

Monthly Projected Income Method

Calculations for four income streams:
- Pension system(s)
- Supplemental Plans
- Social Security
- Outside assets

Pension Calculation

- Based on member's average final compensation (AFC), assuming the last 4 years of reported compensation were the highest.
- Years of service, assuming the member continues to work until their first unreduced retirement date.
- An accrual factor of 1.82%*, as determined by the General Assembly.

[AFC] x [years of service] x [accrual factor] = per year / 12 = Projected Monthly Income

 * TSERS only; every pension system has a different accrual factor

Supplemental Calculation

Part 1: Future Value of Current Balance

- End-of-year balance is used to calculate the future value of that balance at the time of retirement.

- Retirement Age is based on the following:

  - **If a member's current age is under 59 ½, their retirement age will be 59 ½**

  - **If a member's current age is over 59 ½, their retirement age will be based on the normal retirement date of their DB plan or default to age 65**

- Remaining years of service are determined by the difference between retirement age and current age.

- Assumed annual growth percentage of 5% is applied.

$$FV = PV (1+i)^n$$

FV = Future Value (Balance at Retirement) PV =
Present Value (EOY Balance)
i = annual growth rate of 5% n =
remaining YOS

Note: Your individual experience will vary based on the asset allocation in your portfolio.

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Supplemental Calculation

Part 2: Future Value of Future Plan Contributions

- Current year contributions (both employee and employer) are used to project annualized future contribution.

    Example: If an employee has $3,000 of contributions for this year, that amount will be used to project future years' contributions

- Retirement age.

- Remaining years of service.

- Assumed annual growth percentage of 5% is applied.

$$FV = C((1+r)^n-1/r)$$

FV = Future Value (Balance at Retirement)
C = Contribution Amount
r = annual growth rate of 5%
n = remaining YOS

Supplemental Calculation
Part 3: Determine Monthly Income

- Both the <u>first</u> and <u>second</u> factors are added together to get the total future balance at retirement.
- Total months in retirement is calculated by the difference of retirement age, and age 90.
- Divide the total future balance by total months in retirement.

[FV1 + FV2] / [90 – retirement age x 12] =   **Total Projected Monthly Supplemental Income**

Social Security Calculation

- Not based on an individual's actual SSA calculation (no coordination between SSA and Prudential).

- Prudential makes an estimation by modeling the SSA benefits formula.

- The current earnings (used as a basis to project the DC account balance going forward) are used as a starting point. Earnings for future years are then projected forward at the current salary used to calculate the projected DC account balance. Earnings for prior years are projected backwards using National Average Wages.

- Once the earnings stream is developed, the actual SSA formula is used (i.e., with average indexed monthly earnings, bend points, etc.).

Outside Assets Calculation

NC 401(k) and NC 457 Plan participants can use the Retirement Income Calculator (RIC) on the Prudential website to enter outside assets, such as those associated with a former employer, for a more complete retirement picture.

- 401(a), 401(k), 403(a), 403(b), 457
- IRA (Roth or traditional)
- Any other savings earmarked for retirement
- Uses the same assumptions as the supplemental monthly income contributions using only the first factor
- The calculation assumes no future contributions

$$FV = PV (1+i)^n$$

FV = Future Value (Balance at Retirement)
PV = Present Value (EOY Balance)
i = annual growth rate of 5%
n = remaining YOS

Thank you

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